

ASTROBIO™ SD 8

Bio solvent blend, safer replacement of d-limonene Technical Data Sheet

Product name: ASTROBIO™ SD 8
Manufacturer: Liberty Chemicals s.r.l. (Italy)
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Area of Use:

Sustainable and safer bio-solvent replacement of d-limonene in many industrial applications. It's used in formulation of coatings, laquers, paints, varnishes, adhesives and inks based on SBC elastomers, epoxies, acrylics, alkydics, phenolics, terpenics, polyesters, melamines, vinylics and polyamides resins. It has a great solvency power for nitrocellulose, wood rosins and some chlorinated rubbers as well. It's very effective as cleaner in industrial settings to remove different kinds of residues and soils (e.g. for PU and nylon residues). **ASTROBIO™ SD 8** is also used in formulation of eco-friendly and bio-based paint driers, as a partially VOC solvent in leather refinishing and to formulate bio-based and sustainable paint strippers, PU cleaners, industrial and household detergents.

Technical Benefits:

- Very effective as a parts cleaner and in degreasing operations (e.g. PU and nylon).
- **Reduced evaporation losses: stays on the job longer.**
- Easy and inexpensive to distill or recycle.
- **Strong solvency power for different resins, polymers grade and soils.**
- **Custom blend available for maximum performances.**
- Excellent flow characteristics in formulation.
- High loading capacity.

Available Packaging:

Drums	IBC	Bulk
194Kg	990Kg	≥ 10MT
net weight	net weight	net weight



Key Features:

Bio-based solvent according to EN 16575

Flashpoint	64° C	EN 3679
RER (BuOAc=1)	0,05	Calculated
Vap. pressure (20°C)	0,37 kPa	Calculated
Boiling range	151° - 330° C	-

Solvency power:

HSP's	δd	δp	δh	δt	Calculated
	16,46	4,69	9,36	19,66	

Environmental Benefits:

- Readily biodegradable raw materials.
- Slow Climate change: carbon neutral balance.
- Sustainable chemistry: renewable raw materials.
- No ozone depleting chemicals (OPD).
- No environmental hazardous ingredients.
- No hazardous air pollutants.

Health Benefits:

- Aromatics, ketones, paraffins, alogens and terpenics FREE.
- Non flammable
- **Safer than d-limonene due to its hazard statements and GHS classification.**

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Guaranteed Specifications

Properties	Standard	ASTROBIO™ SD 8	Units
Appearance	Visual	Clear colourless to slightly yellow liquid	-
Colour	ASTRO001 ¹	200	Pt-Co (APHA), Max
Specific gravity (20°C)	ASTRO002 ¹	0,94 – 1,00	g/mL
Moisture	ASTRO003 ¹	0,3	% in weight, max

Technical Performances and properties

Properties	Standard	ASTROBIO™ SD 8				Units
Chemical composition	-	Blend of organic acids esters ²				-
Solvency power: HSP's	Calculated	δd	δp	δh	δt	Mpa ^{1/2}
		16,46	4,69	9,36	19,66	
Boiling range	-	151 - 330				°C
Flashpoint	EN 3679	64				°C
Evaporation rate	Calculated	0,05				RER (BuOAc=1)
Vapor pressure (20° C)	Calculated	0,37				kPa
Dynamic Viscosity (25° C)	ASTRO004 ¹	≈ 2,17				mPa.s

Environmental characteristics and Biodegradability

Properties	Standard/Reference	ASTROBIO™ SD 8	Units
Ready Biodegradability ³	OECD 301 series	> 85	% w/w in 10 days window
Ultimate biodegradability ⁴	-	100	% w/w at 67 days
Water hazard	WGK Germany	1	Class
VOC content	Directive 2010/75/UE and Swiss Regulation (814.018)	84,06	% w/w
	Directive 2004/42/CE	84,06	% w/w

This product has to be subjected from any industrial or professional user to careful tests, in order to evaluate his effectiveness for expected applications. Our company waives any responsibility in case of any improper usage of this product.

Manufactured in Italy (European Union).
ASTROBIO™ is a trade mark of Liberty Chemicals s.r.l.
 (Italy)

Issued by: ASTROBIO™ division | Liberty Chemicals s.r.l. (Italy).

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Footnotes:

1. Analysis conducted according to an internal standard protocol.
2. All ingredient are REACH registered.
3. Product has not been tested itself to access ready biodegradability, but all raw materials used during manufacture are classified as readily biodegradable according to one or several of the following OECD guidelines: OECD 301 A, B, C, D, E, F.
4. Product has not been tested itself to access ultimate biodegradability, but all raw materials used during manufacture are completely (100%) biodegradable in 67 days or less.